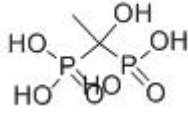


## Technical Data Sheet

### Basic information

Chemical name	1-Hydroxyethylidene-1,1-diphosphonic acid	Formula	C <sub>2</sub> H <sub>8</sub> O <sub>7</sub> P <sub>2</sub>
Synonyms	HEDP	Chemical structure	
CAS.No.	2809-21-4		
EINECS No.	220-552-8		
Molecular weight	206.03		

### Physical properties

Appearance	Liquid & Powder
Density, 20°C, g/cm <sup>3</sup>	1.45
Boiling point, °C	578.8° C
Melting point, °C	198~199°C
Flash point, °C	303.8° C

### Specification

Items	Liquid	Powder
Appearance	Clear, Colorless to pale yellow aqueous solution	White crystal powder
Active content (HEDP)%	58.0-62.0	90.0 min
Active content (HEDP H <sub>2</sub> O)%	-----	98.0 min
Phosphorous acid (as PO <sub>3</sub> <sup>3-</sup> )%	1.0 max	0.8 max
Phosphoric acid (as PO <sub>4</sub> <sup>3-</sup> )%	0.6 max	0.5 max
Chloride (as Cl <sup>-</sup> ) ppm	100.0 max	100.0max
pH (1% solution)	2.0 max	2.0 max
Density g/cm <sup>3</sup>	1.43-1.47	-----
Fe, mg/L	10.0 max	5.0 max
Colour APHA (Hazen)	30.0 max	-----
Ca sequestration (mg CaCO <sub>3</sub> /g)	500.0 min	-----

### Application

HEDP is used as scale and corrosion inhibition in circulating cool water system, oil field and low pressure boilers in fields such as electric power, chemical industry, metallurgy, fertilizer etc..

- 1) In light woven industry, is used as detergent for metal and nonmetal.
- 2) In dyeing industry, HEDP is used as peroxide stabilizer and dye-fixing agent;
- 3) In non-cyanide electroplating, HEDP is used as chelating agent. The dosage of 1-10mg/L is preferred as scale inhibitor, 10-50mg/L as corrosion inhibitor, and 1000-2000mg/L as detergent.
- 4) Usually, HEDP is used together with polycarboxylic acid.

### Package

Powder: 25kg/bag,25mt per 20'ft;

Liquid: 250kg plastic drum,290kg plastic drum,80drums per 20'ft.



### Safety on transportation

It belongs to 8 class dangerous goods, always refer to MSDS.

### Storage and handling

Keep tightly closed, store in a cool dry place.

Please refer to the Materials Safety Data Sheet (MSDS) for the handling methods.

*The information above is believed to be accurate and represents the best information currently available to us. However, In no event shall we be liable for any claims, losses, or damages of any third party resulting from its use.*

**Issue Date:** 1st,12,2016